

## Declaration

I, Antonio López Muñoz, inventor of the U.S. Patent Application No. 10/525,510, hereby I DECLARE THAT:

(11/09/2009) The reason to develop the ink, subject of the Patent Application, was the concrete request of one of our Spanish clients. Said client works on serigraphy print over paper with the ink based on disperse dyes, but said ink should serve for textile printing by sublimation.

We worked on developing of such ink, but we found a lot of difficulties in dispersing the disperse dye in order to achieve the size of particle less than 1 micron.



In contrast to the pigments that have the initial size of particle which is less than 1 micron, the disperse dyes normally have the initial size of particle from 7 to 10 microns, always of crystalline formation. Thus, there are some difficulties to try to disperse until the initial size of particle in case of dispersing dyes.

The novelty of the invention of said ink consists in the mixture of monomers and oligomers with disperse dye with higher viscosity in order to use the maximum energy and break down the crystals to achieve the size which is less than 1 micron. For this purpose it is necessary to apply a very high energy.

After the breaking of the crystals of disperse dye up to the size which is less than 1 micron, there is dissolution until the necessary viscosity is achieved for correct shot of the ink from the printing head.

It should be pointed out the great differences between the disperse dyes and pigments due their chemical origin which is completely different, including their physical characteristics.

In June of 2002, we met Mr. Richard Codos, who showed us his machine, developed for printing over textile material with disperse dyes and UV inks, but at the same time he confessed us that he had not been able to find a stable ink with these characteristics. We commented him that our firm was working in the development of an ink with said characteristics that they needed.

In October, 2002 we visited the I+D department of L&P (New Jersey) to perform some tests of printing with our ink in his printing machine. Mr. Richard Codos performed some tests with our ink and we signed an agreement of ink supply. From that moment L&P showed its printing machine with our ink in several trade shows and exhibitions.

Until today, seven years later from Spanish priority application, there is no other ink in the market based on disperse dyes and UV-curable.

Rubí (Barcelona), on 22<sup>nd</sup> October 2009.

A handwritten signature in black ink, appearing to be 'Rubí', with a horizontal line drawn underneath it.

dispersing dye

1a

pigment

2a

2b

